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HPIC/TSG/RED/SDB-023-71  
25 June 1971

MEMORANDUM FOR THE RECORD

SUBJECT: HPSC Problems

1. [ ] visited the Center on 24 June 1971 on his way to [ ] for T&E of the optics for the Scan & Search PI Station. His first contact in the building was the HPSC room to ascertain the progress being made in assembly of the instrument. Upon being advised of the conditions affecting the instrument--temperature and humidity--he contacted the undersigned who convened a meeting of [ ] SS/LB, [ ] ESD/TEB, [ ] IEG/PD, to discuss methods of alleviating the problems and forthcoming schedules for T&E.

2. The immediate problem concerning the HPSC is the high humidity in the room--74-75%--which is so bad that the relays and the card travel channels on the card punch are rusting and the interferometer frame and exterior panels on the instrument itself are rusting. If this condition is allowed to continue over the weekend of 26-27 June, there is a strong probability that some of the serious assemblies of the instrument will be damaged. The humidity should be maintained at  $50\% \pm 1\%$ .

3. Another problem area is the high and varying temperature--71° to 75°. In order to check out the optics and measuring systems of the instrument this needs to be held to  $\pm \frac{1}{2}^\circ$ . Since pre-acceptance tests are to commence on 6 July and the room needs about one week to settle temperature-wise, it is imperative the temperature be stabilized so the contractor can align the optics and measuring system prior to testing.

4. [ ] at the meeting, was made aware of the urgency of these matters and stated that [ ]--the building contractor--was sending a man in to go completely over the airconditioning system, find the trouble and correct it.

5. Another area discussed with [ ] was the cleanliness of the area--which has been hard to maintain since the GSA and contractor personnel have been working continuously in the room. It was determined that [ ] would immediately clean the adjacent hallway by removing packing crates to storage, etc. and any further dirt-creating

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work would be done in the hallway rather than in the room. The temporary storage at the end of the room will be cleaned out and the instrument room semi-cleaned.

6. A subject brought up by [ ] was the apparent lack of concern over the proper operation of the "Blue Box" which is the air controller/supplier for the objective-platen area of the stages. Some modifications have been made during the three months since it has been returned from the west coast. However, [ ] seems to be of the opinion that this is a useless piece of equipment and not worth the effort. This is not the case as the carefully temperature controlled air at the objective/platen area is necessary to keep the film at a constant temperature while measuring at high magnifications--otherwise the films would expand and/or contract and constant measurements would not be valid.

7. Since [ ] is going on leave on 28 June, [ ] will be the Logistics officer in charge of this effort. Accordingly, he too was briefed on the problems above by [ ]. Assurance was received from him that the problem areas would be investigated and solved.

8. Tentative schedules for testing the HPSC are as follows:

Week of 6 July - Program Debugging to begin  
Week of 12 July - Pre-acceptance Tests to begin  
Week of 19 July - Formal Acceptance Tests to begin - will continue for two weeks.

The HPSC problem areas were brought to the attention of the Chief, TSG, on 24 June 1971.

[ ]  
Project Officer  
NPIC/TSG/RED/SDB

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